

1/30

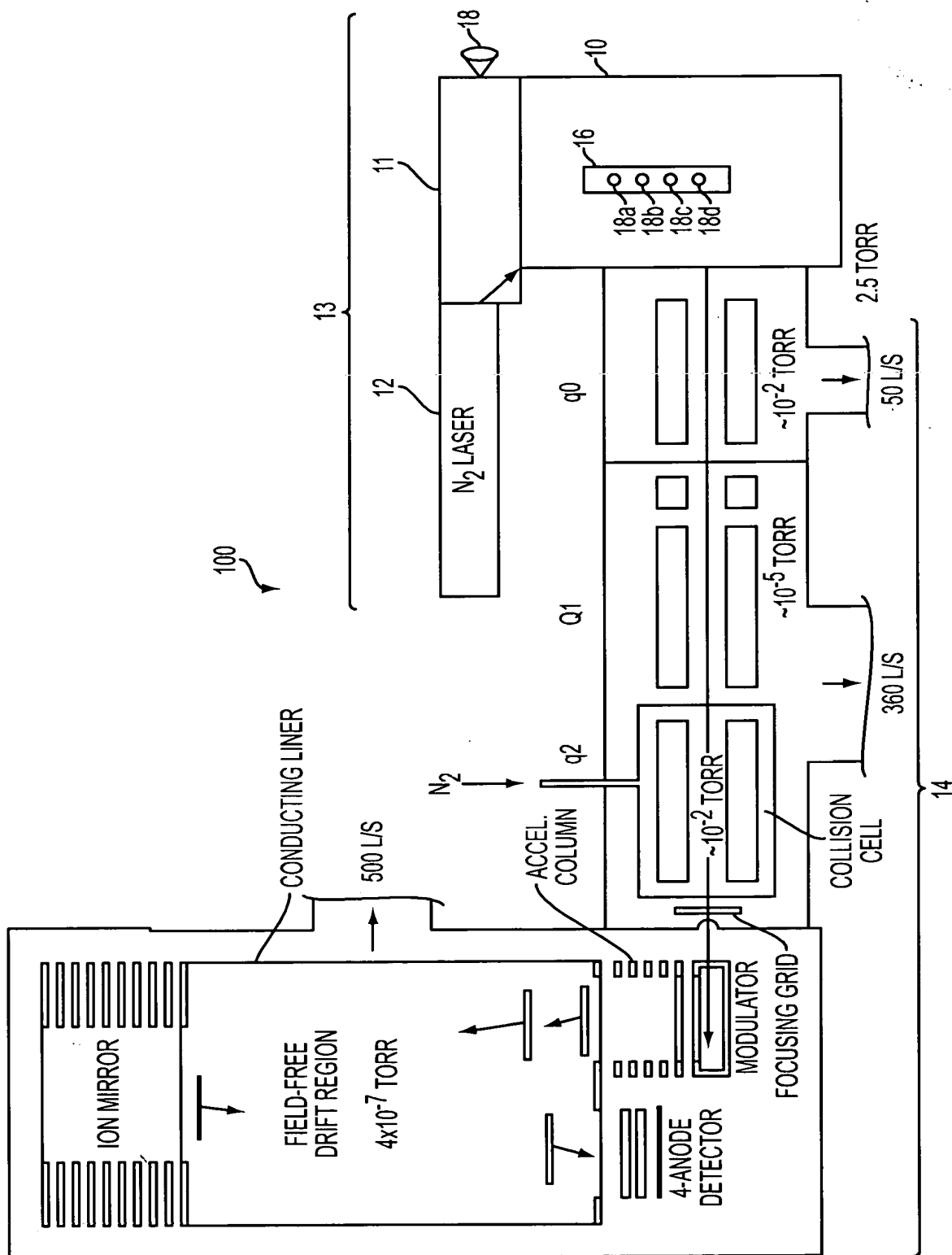


FIG. 1

2/30

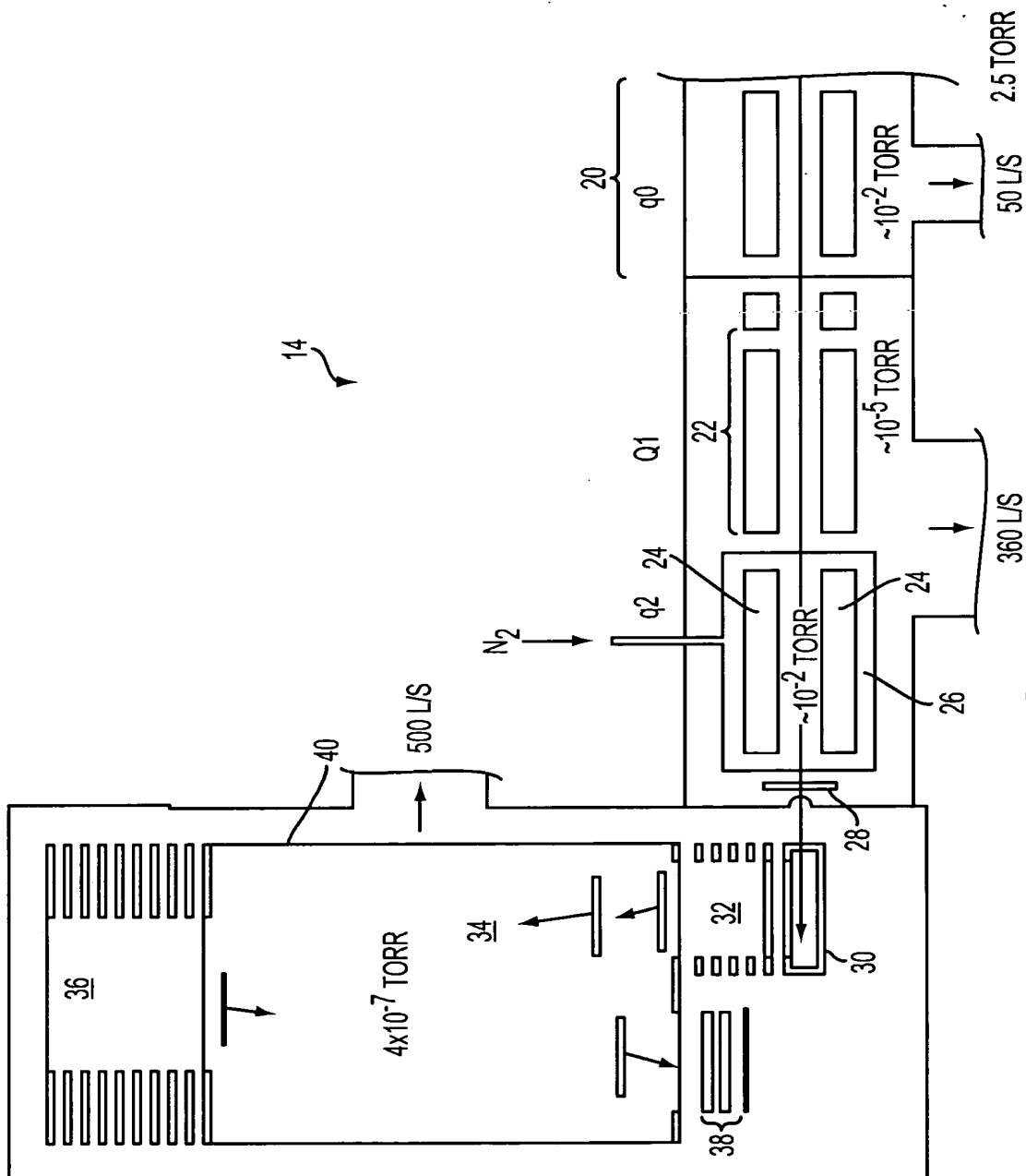
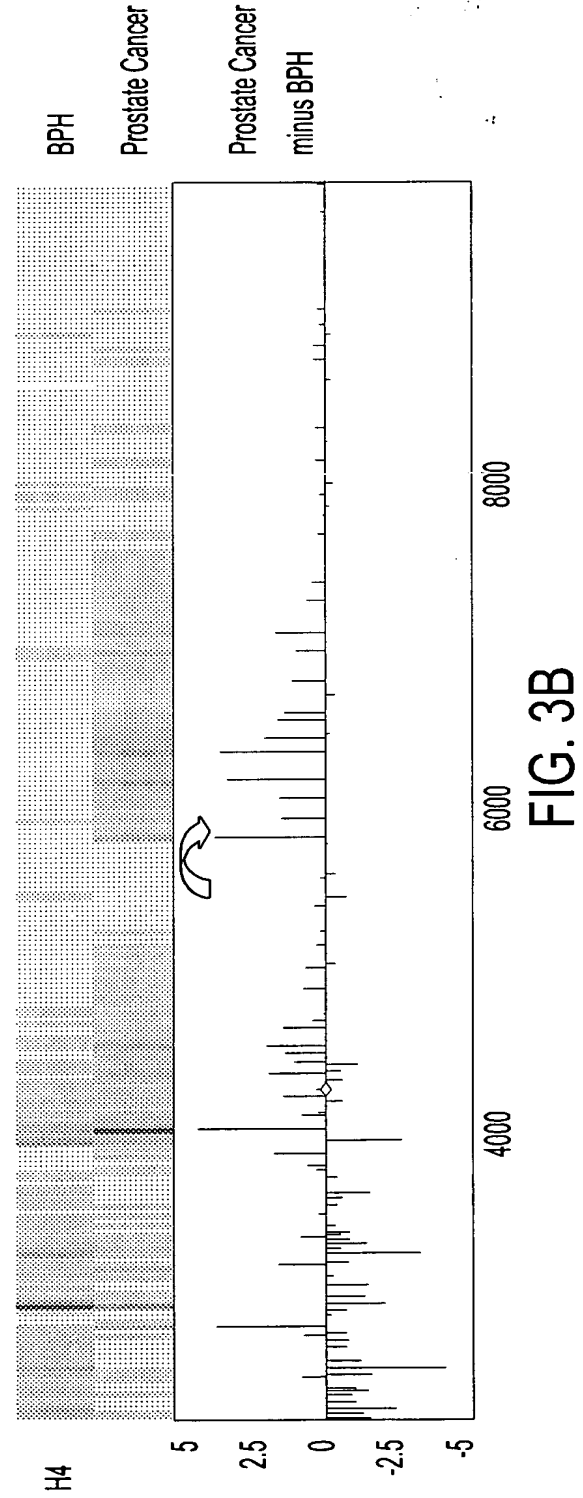
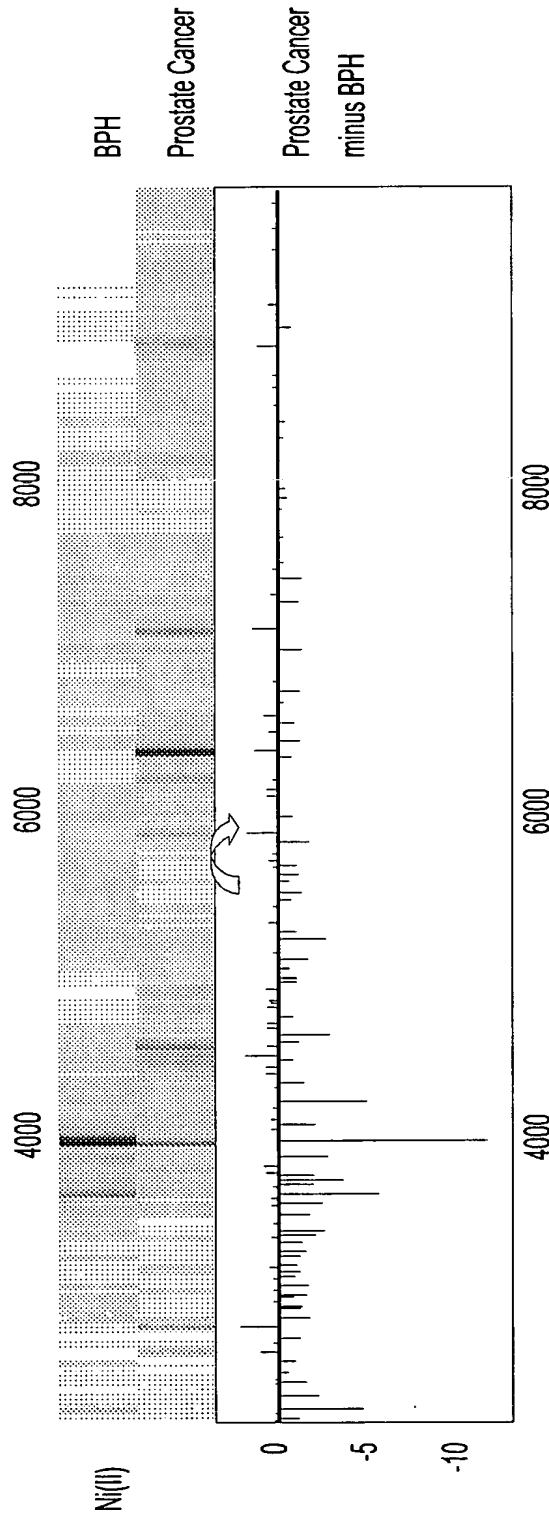


FIG. 2

3/30



4/30



FIG. 4

5/30

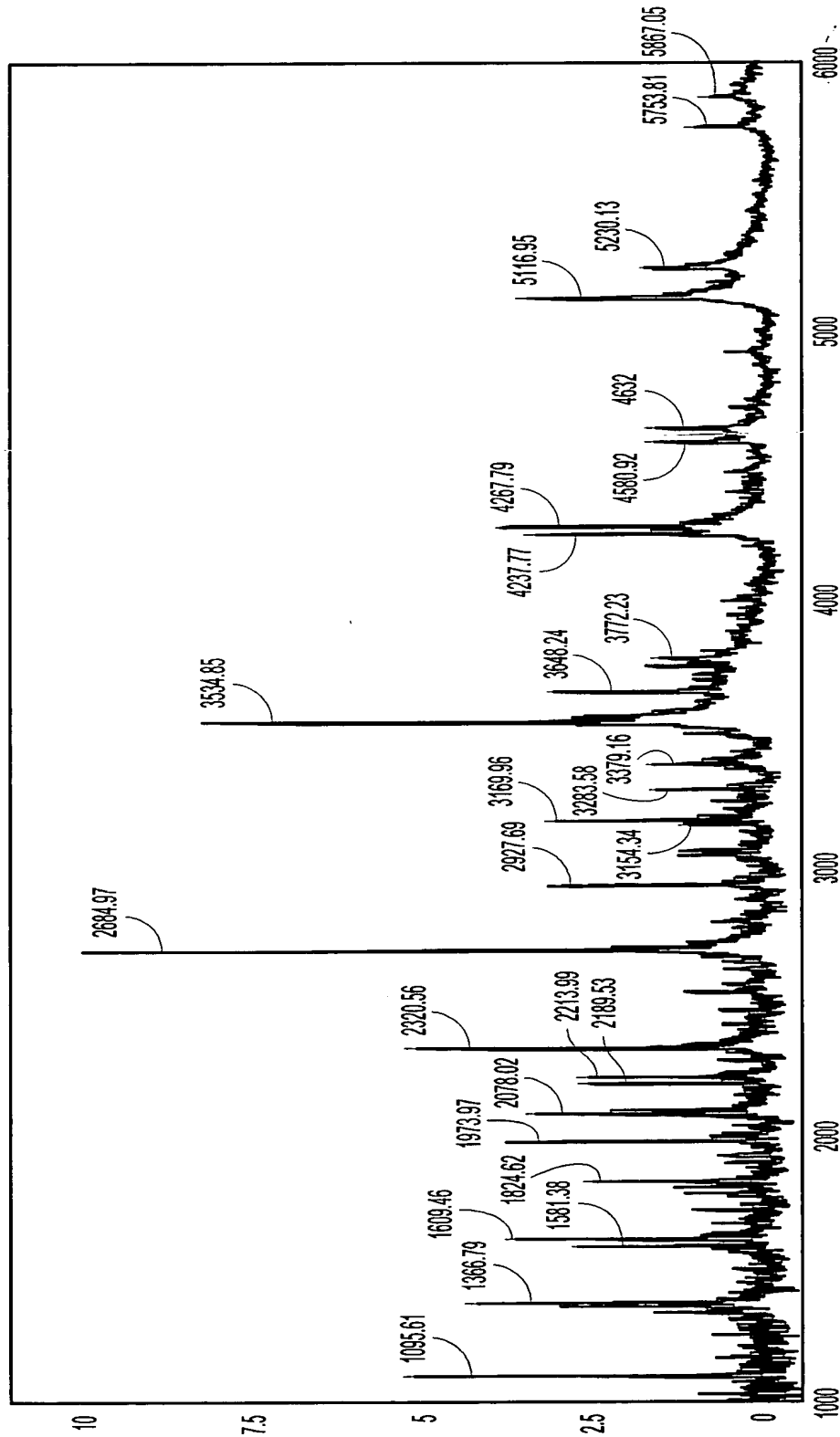


FIG. 5

6/30

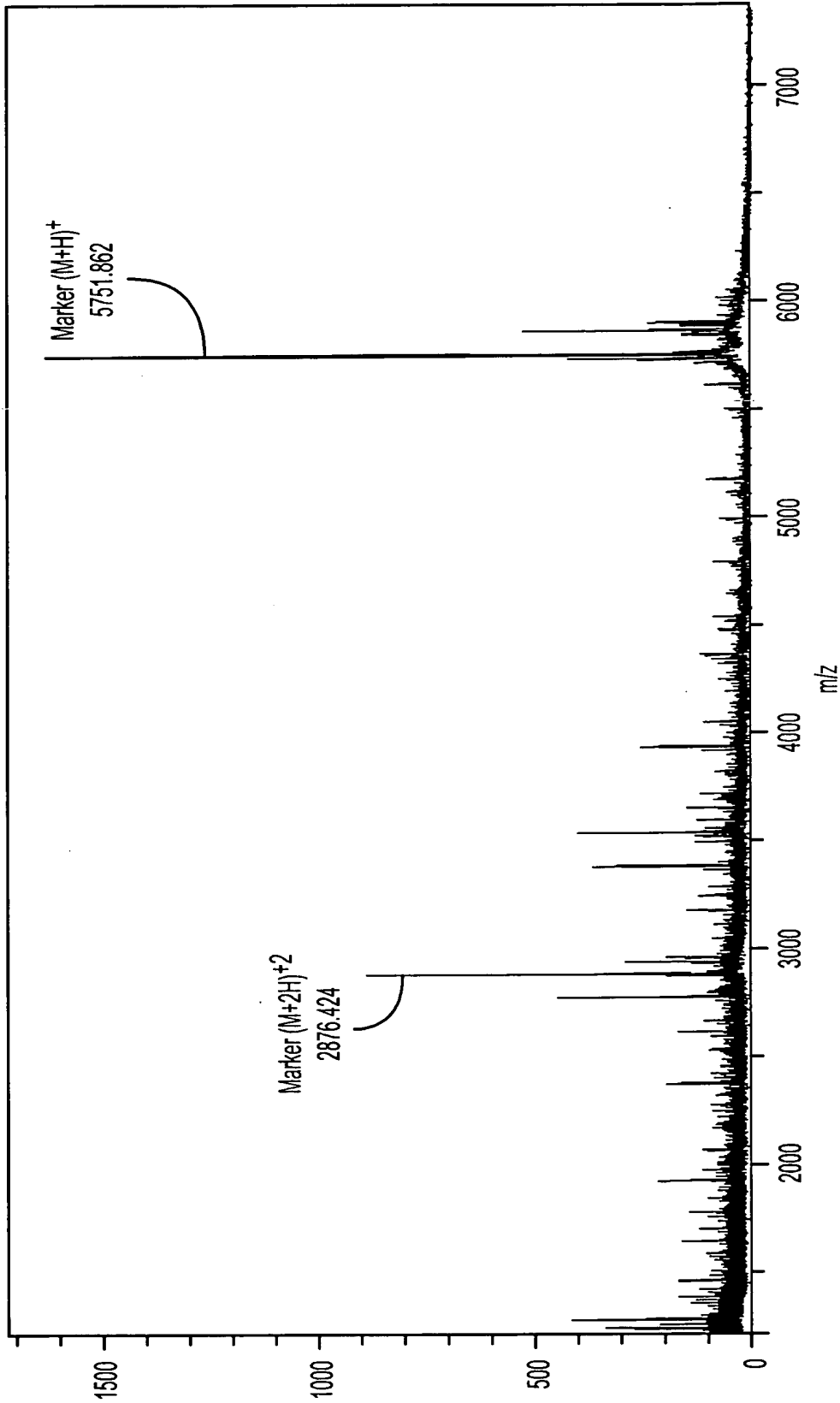


FIG. 6

7/30

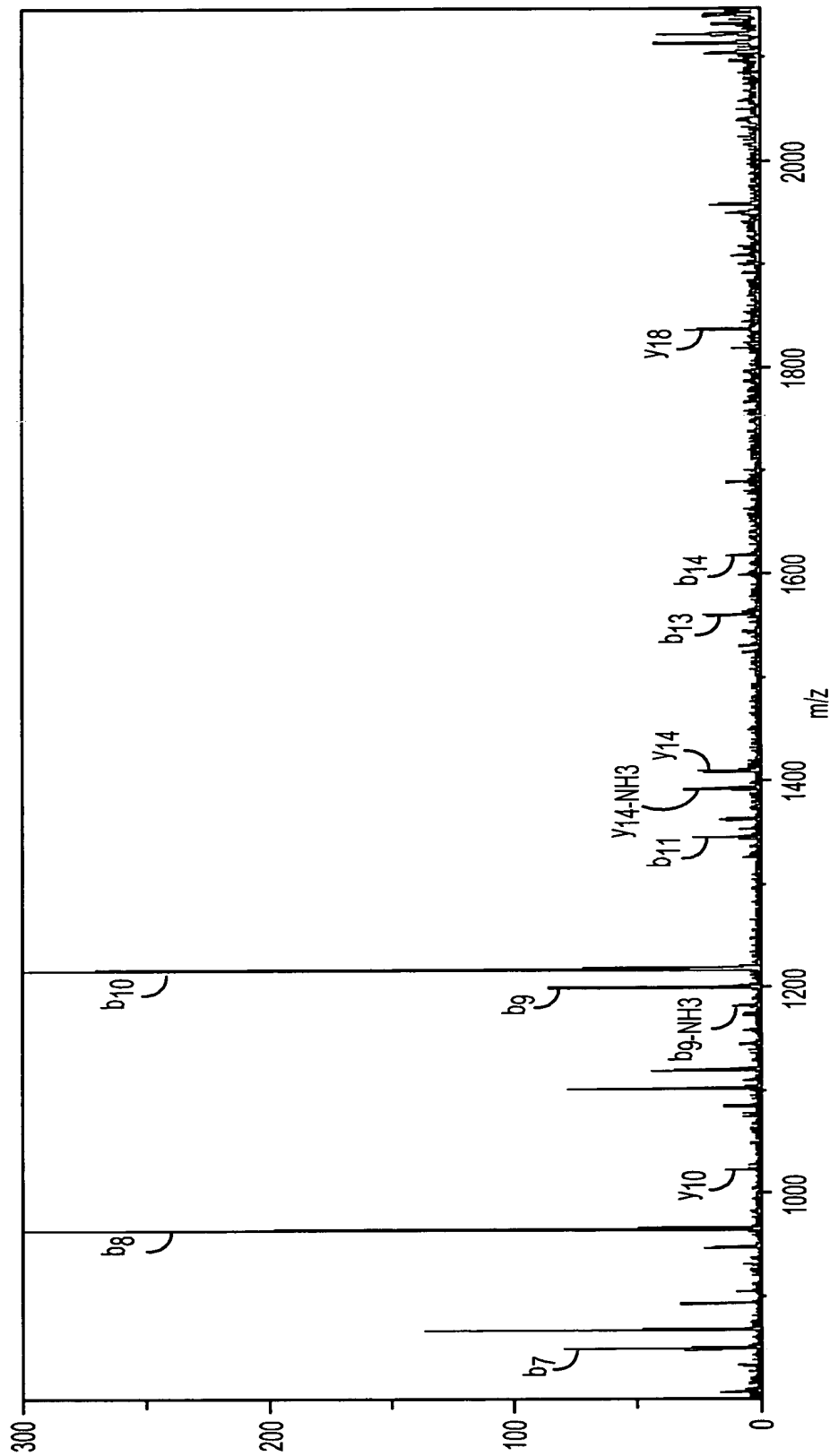


FIG. 7

8/30

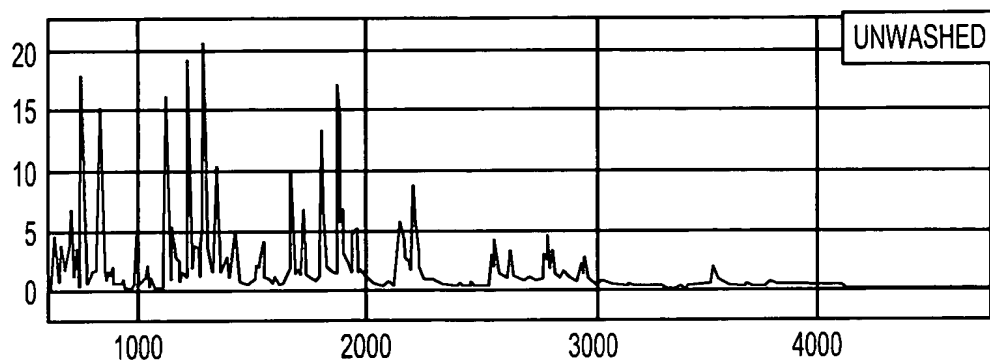


FIG. 8A

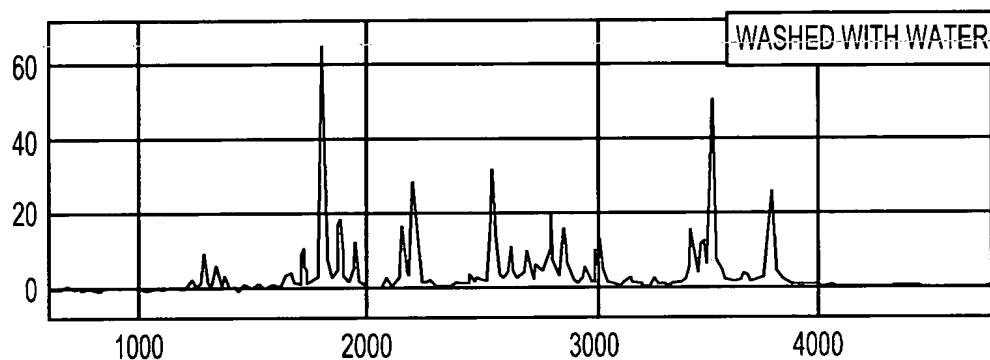


FIG. 8B

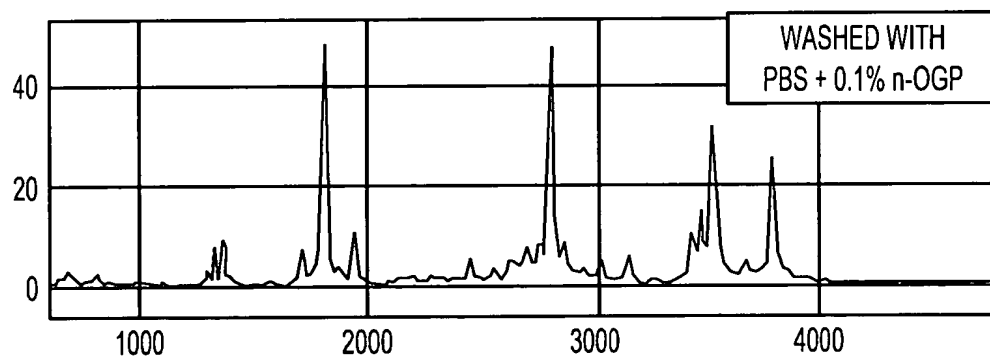


FIG. 8C

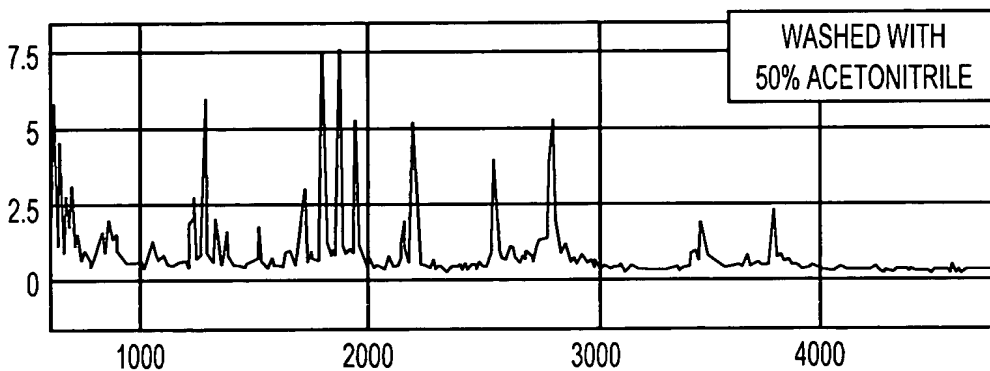


FIG. 8D

9/30

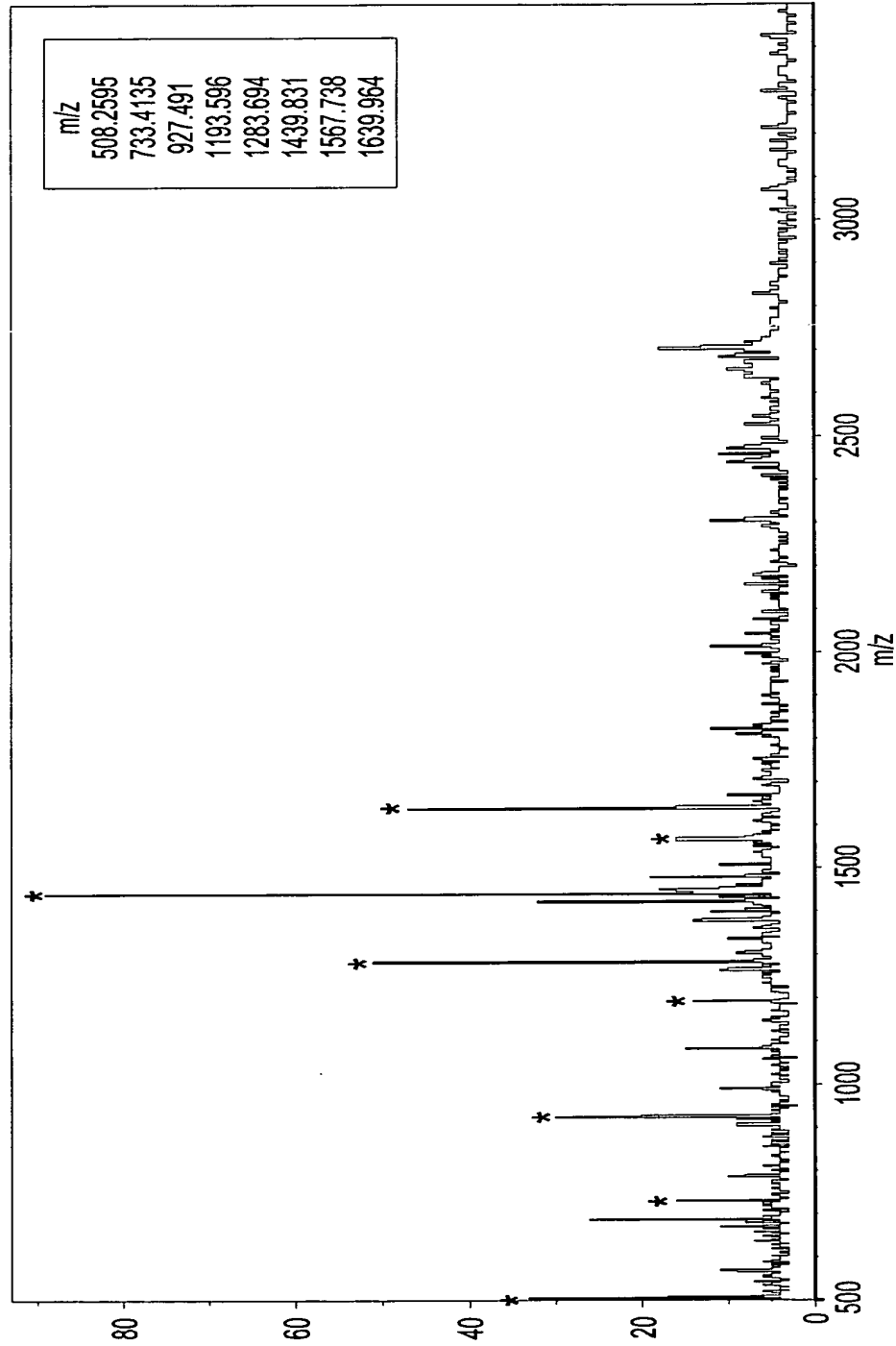


FIG. 9

10/30

m/z
508.2488
572.3584
689.3708
733.4133
906.4743
927.4924
1001.583
1083.596
1193.603
1283.707
1439.806
1595.88
1639.933
1810.986
1823.904
1897.078

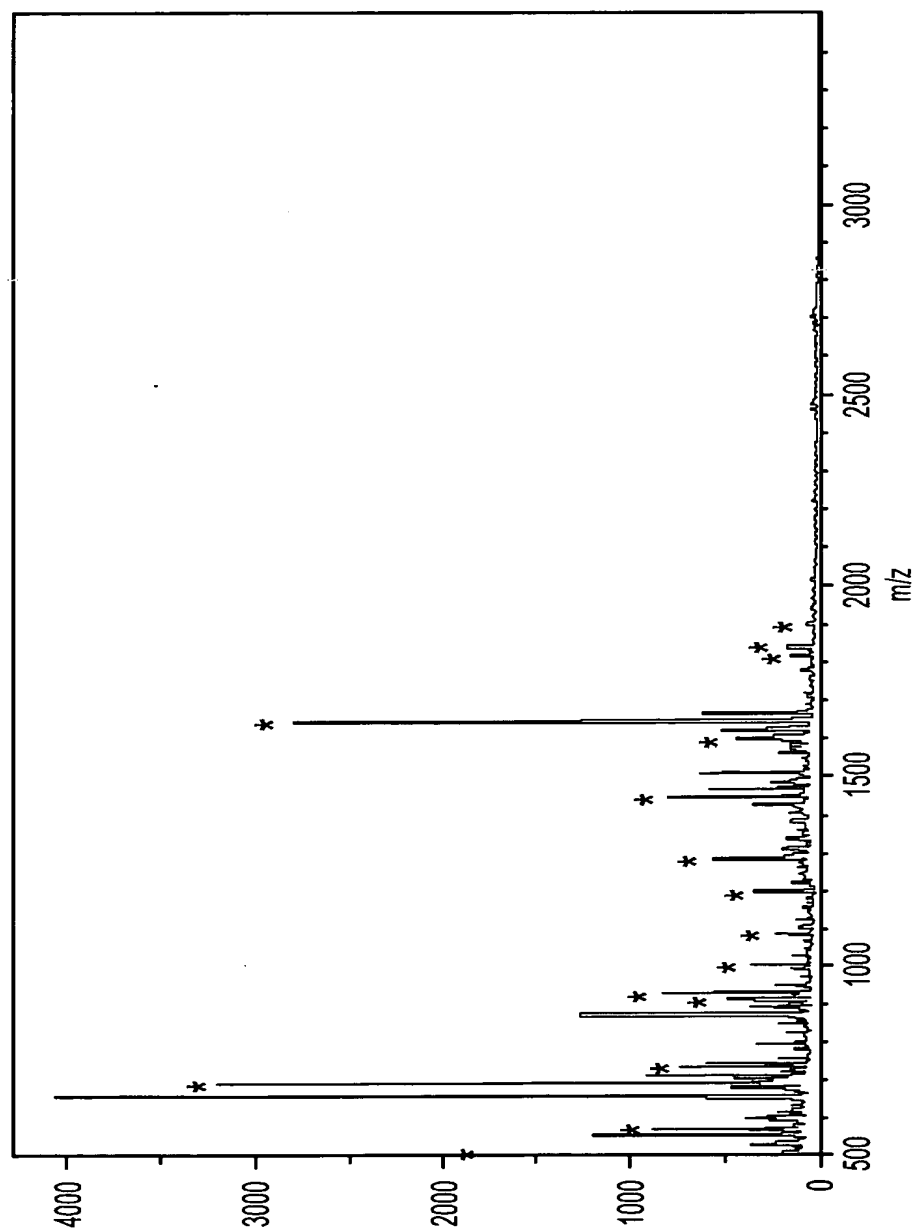


FIG. 10

11/30

Fragment	Residues	Cal. M/Z	pI	H2O	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
30	204-207	KF...R/A	6		508.2524	508.2523	508.2507	508.2488	508.2477	508.247	508.2471	508.2518
27-28	194-197	RIQ...R/C	12		572.3636	572.3628	572.3623	572.3584	572.3585	572.3576	572.3581	572.3628
32	211-216	K/A...R/L	9.8	689.3766	689.376	689.3753	689.3753	689.3708	689.3693	689.3692	689.37	689.3728
26	187-193	KV...R/Q	9.7	733.4199	733.4219	733.421	733.4202	733.4133	733.4159	733.4093		733.4208
66	457-463	RL...K/T	6.7		847.5087	847.5087			847.5046		847.4989	841.4598
33-34	217-223	RL...K/A	10	906.4826	847.5069	906.4814	906.4786	906.4743	906.4594			847.5038
24-25	180-186	K/L...K/V	6.1		906.4808	918.5239						906.4718
28-29	196-203	RL...K/F	9.5		927.498	927.497	927.4991	927.4924	927.4889	927.4886	927.4905	918.5188
19	137-143	KY...R/R	6	927.4975								927.4938
25-26	185-193	RIE...R/Q	8.8	990.5469		990.5759	1001.592	1001.583	1001.568	1001.581	1001.582	990.5578
31-32	208-216	R/A...R/L	11	1001.61	1001.592	1001.592	1001.585					1001.5888
26-27	187-195	KV...R/L	12									
69	473-481	K/C...R/R	6									
19-20	137-144	KY...R/H	8.6	1083.597	1083.602	1083.602	1083.601	1083.596	1083.59	1083.605	1083.575	1083.5948
29-30	198-207	R/C...R/A	8.2		1138.579	1138.578						1138.5678
36893	36901	-D...R/F	6.9	1193.609		1193.611	1193.595	1193.603	1193.596	1193.593	1193.6	1193.6018
36954	37215	R/F...K/G	5.4		1249.624							1249.6208
50	336-346	R/H...R/L	6.7	1283.726	1283.714	1283.714	1283.712	1283.707	1283.701	1283.697	1283.712	1283.7108
55	377-387	K/H...K/Z	5.3		1305.707	1305.689	1305.693					1305.7158
8	65-76	K/S...K/V	5.3									1362.6718

FIG. 11A

12/30

Fragment	Residues	Cal. M/Z	pI	H2O	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
49-50	335-346	RR...RL	8.7	1439.812	1439.815	1439.819	1439.812	1439.806	1439.801	1439.794	1439.81	1439.8118
18-19	133-143	KF...RR	8.5									
68-70	470-482	KV...RP	10.8									
48	322-334	KD...RR	4.4	1567.756	1567.756							1567.7428
50-51	336-349	RH...KE	8.6	1595.906	1595.908	1595.882	1595.891	1595.88			1595.895	1595.9268
74-77	519-533	KQ...KP	10								1777.12	1777.1058
59-60	411-425	RIK...RS	8.7	1639.943	1639.942	1639.944	1639.94	1639.933	1639.928	1639.928		1639.9378
65	443-456	RM...RL	4.4									
33-36	224-238	KA...KV	4.7	1750.952	1692.942	1750.961	1811.035	1810.986	1811.007	1810.992		1692.9418
33-35	217-231	RL...KL	8.5		1750.981	1811.015	1823.9	1823.904				1750.9738
66-68	457-472	RL...KC	8.2		1811.035	1823.912		1897.078				1811.0088
70-71	482-497	RR...KA	6									1823.8998
60-61	412-429	KV...KV	8.7									1897.0748
14-16	115-131	KL...KK	4.4									1962.9478
47-48	316-334	KN...RR	4.7									2301.0818
36895	36911	-ID...KIG	6.3									
37-39	239-260	KV...KV	4.9	2457.157		2441.13						2441.0998
47-49	316-335	KN...RH	6.1									2457.1828
14-18	115-136	KL...KV	6.2									
63-65	434-456	RC...RL	4.9									2701.2448
36-39	232-260	KL...KV	4.9									3211.5338
51-54	347-376	RL...KH	4.7	14	24	23	16	16	14	12	12	34
				18	34	29	21	20	17	15	9	45

Total Peptides
Sequence Coverage (%)

FIG. 11B

13/30

Fragment	Residues	Cal. M/Z	pI	H2O	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
30	204-207	KF...RIA	6	508.2502	508.2478	508.2457	508.2456	508.2476	508.2478	508.246	508.2455	508.25183
27-28	194-197	RIQ...RIC	12		572.3539	572.352	572.3545	572.3527				572.36283
32	211-216	K/A...RL	9.8	689.371	689.3697	689.3668	689.3668	689.3702	689.3701	689.3629	689.3663	689.37283
26	187-193	KV...RIQ	9.7		733.4115	733.4089	733.4003					733.42083
66	457-463	RL...KIT	6.7									
33-34	217-223	RL...K/A	10									
24-25	180-186	K/L...KV	6.1		906.4688	906.4671	906.4667	906.4706	906.4697	906.464	906.4672	906.47183
28-29	196-203	RL...KF	9.5									
19	137-143	KY...R/R	6	927.493	927.4887	927.4859	927.4861	927.4902	927.4927	927.4855	927.4863	927.49383
25-26	185-193	RIE...RIQ	8.8		1001.578	1001.582	1001.566		1001.571			1001.58883
31-32	208-216	R/A...RL	11									
26-27	187-195	KV...RL	12									
69	473-481	K/C...R/R	6		1024.445		1024.446					1024.45483
19-20	137-144	KY...R/H	8.6	1083.599	1083.593	1083.591	1083.588	1083.584	1083.593		1083.581	1083.59483
29-30	198-207	R/C...R/A	8.2									
36893	36901	-D...R/F	6.9	1193.605	1193.599	1193.596	1193.594	1193.599	1193.599	1193.596	1193.596	1193.60183
36954	37215	R/F...K/G	5.4	1249.62					1249.592	1249.605	1249.607	1249.62083
50	336-346	R/H...RL	6.7	1283.706	1283.7	1283.678	1283.694	1283.687	1283.702	1283.693	1283.695	1283.71083
55	377-387	K/H...K/Z	5.3	1305.704								1305.71583
8	65-76	K/S...K/V	5.3									
49-50	335-346	R/R...RL	8.7	1439.808	1439.801	1439.795	1439.795	1439.797	1439.799	1439.792	1439.792	1439.81183

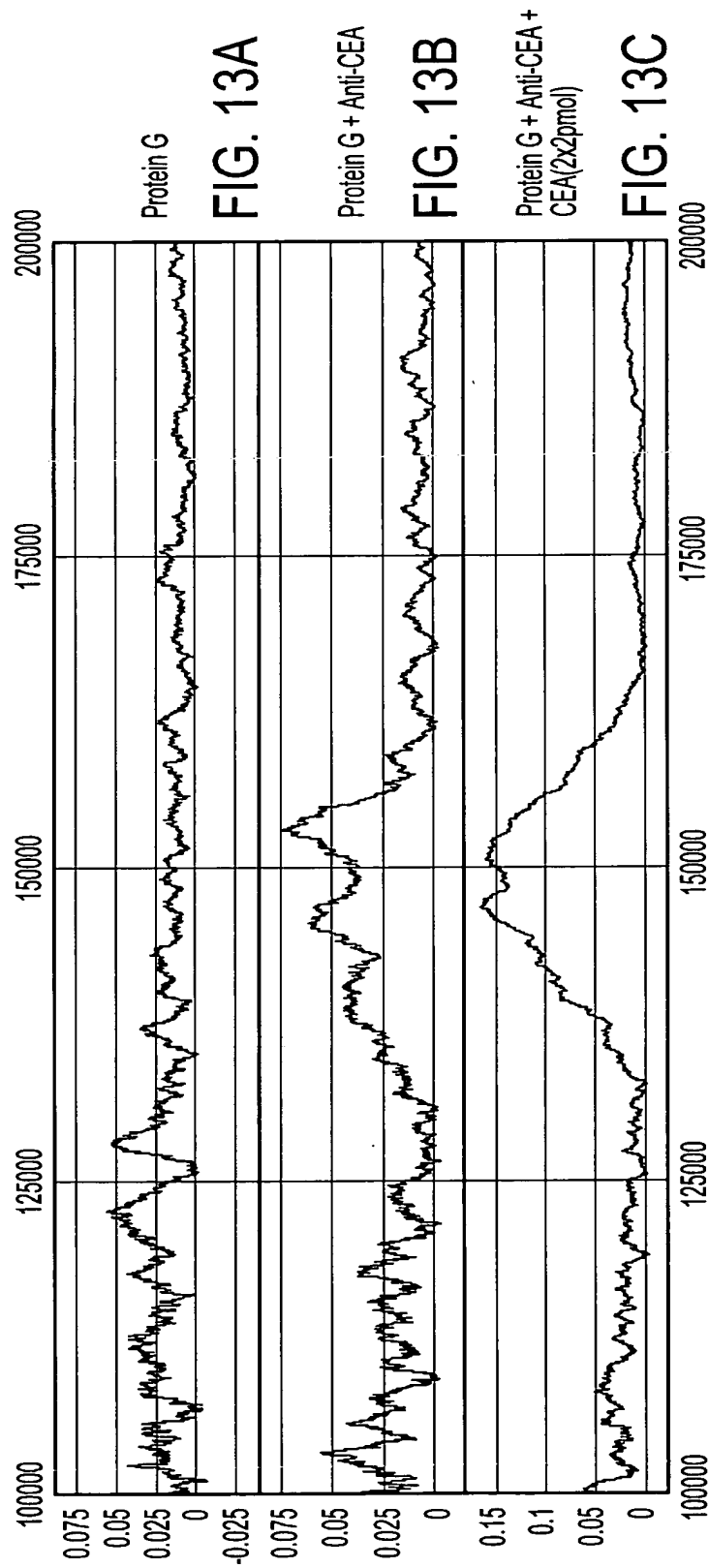
FIG. 12A

14/30

Fragment	Residues	Cal. M/Z	pI	H2O	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
18-19	133-143	KF...R/R	1445.758	8.5								
68-70	470-482	KV...R/P	1508.767	10.8								
48	322-334	KD...R/R	1567.743	4.4	1567.74		1567.735	1567.751	1567.751	1567.731	1567.732	1567.74283
50-51	336-349	R/H...K/E	1595.927	8.6	1595.906		1595.889	1595.885	1595.892		1595.906	1595.92683
74-77	519-533	K/Q...K/P	1777.106	10								1777.10583
59-60	411-425	R/K...R/S	1639.938	8.7	1639.928	1639.923	1639.923	1639.933	1639.934	1639.942	1639.927	1639.93783
65	443-456	R/M...R/L	1667.813	4.4								
35-36	224-238	K/A...K/V	1682.942	4.7								1682.94183
33-35	217-231	R/L...K/L	1750.974	8.5								
66-68	457-472	R/L...K/C	1811.009	8.2	1810.987	1810.998	1810.98	1810.989	1810.991			1811.00883
70-71	482-497	R/R...K/A	1823.9	6								1823.89983
60-61	412-429	K/V...K/V	1897.075	8.7								
14-16	115-131	K/L...K/K	1962.948	4.4								1962.94783
47-48	316-334	K/N...R/R	2301.082	4.7								2301.08183
368-35	36911	-D...K/G	2424.205	6.3								2424.20483
37-39	239-260	K/V...K/Y	2441.1	4.9			2441.07					2441.09983
47-49	316-335	K/N...R/H	2457.183	6.1								
14-18	115-136	K/L...K/Y	2609.306	6.2								
63-65	434-456	R/C...R/L	2701.245	4.9								
36-39	232-260	K/L...K/Y	3211.554	4.9	3211.56				3211.513			3211.55383
51-54	347-376	R/L...K/H	3420.579	4.7								
					17	14	17	13	15	10	12	26
					25	17	24	17	23	15	15	37
					Total Peptides							
					Sequence Coverage (%)							

FIG. 12B

15/30



16/30

Protein G + Pepsin

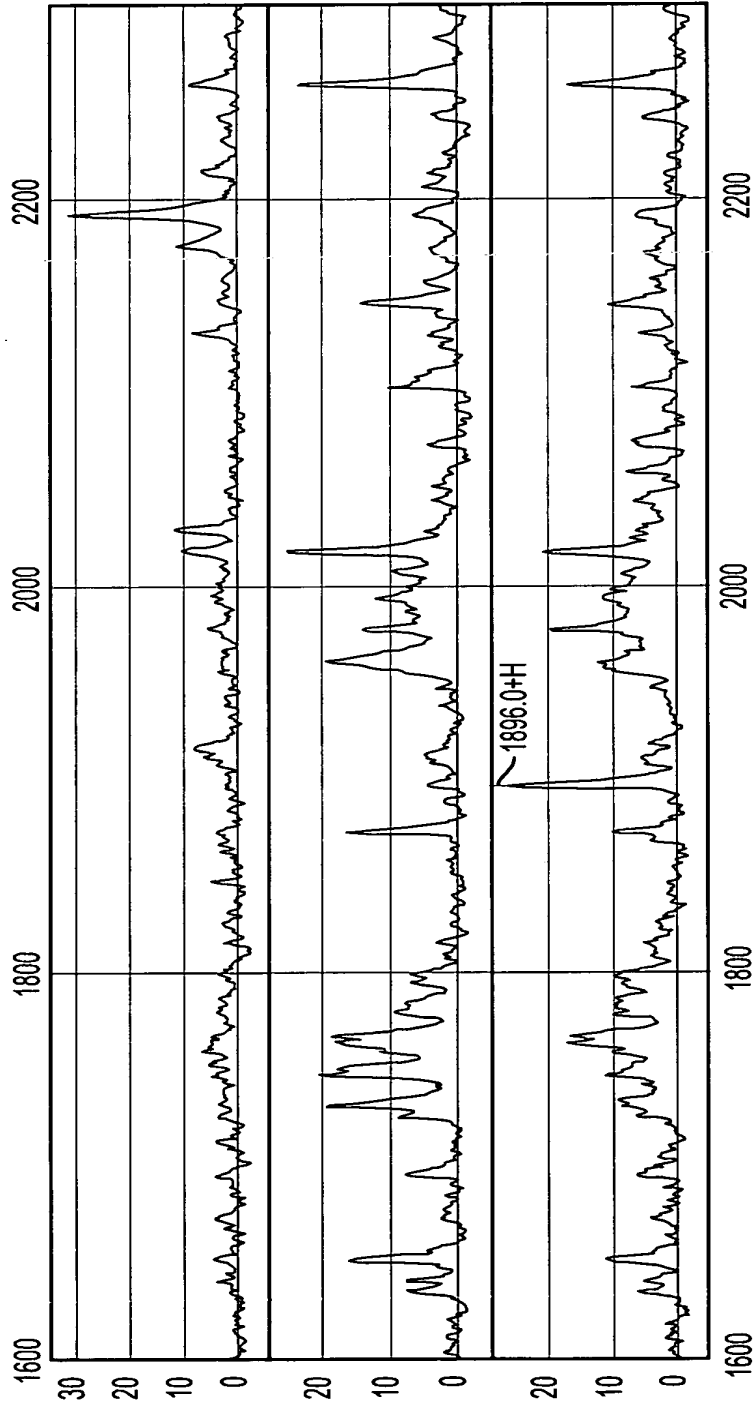
FIG. 14A

Protein G + Anti-CEA +
Pepsin

FIG. 14B

Protein G + Anti-CEA +
CEA(2x2pmol) + Pepsin

FIG. 14C



17/30

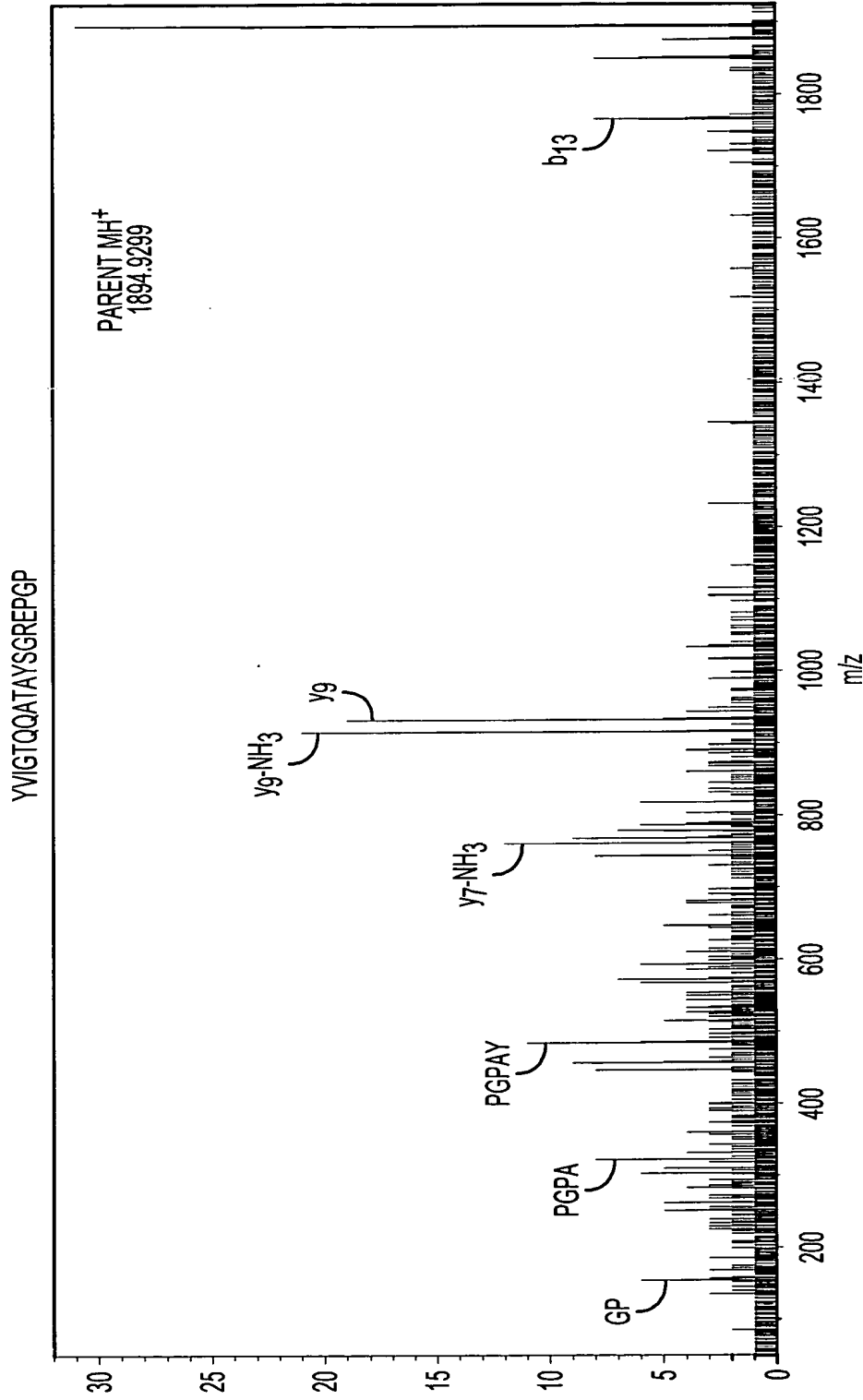
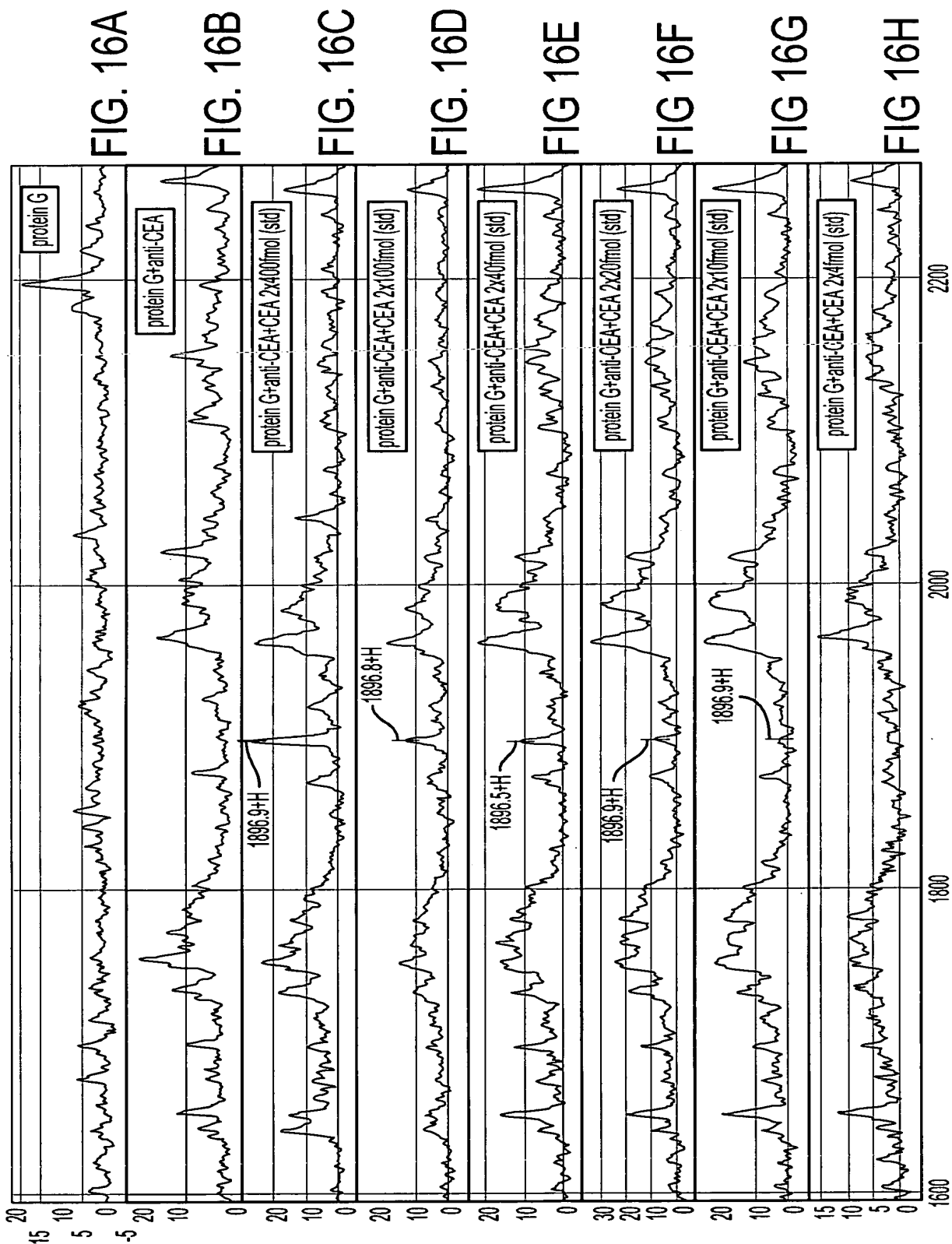


FIG. 15



19/30

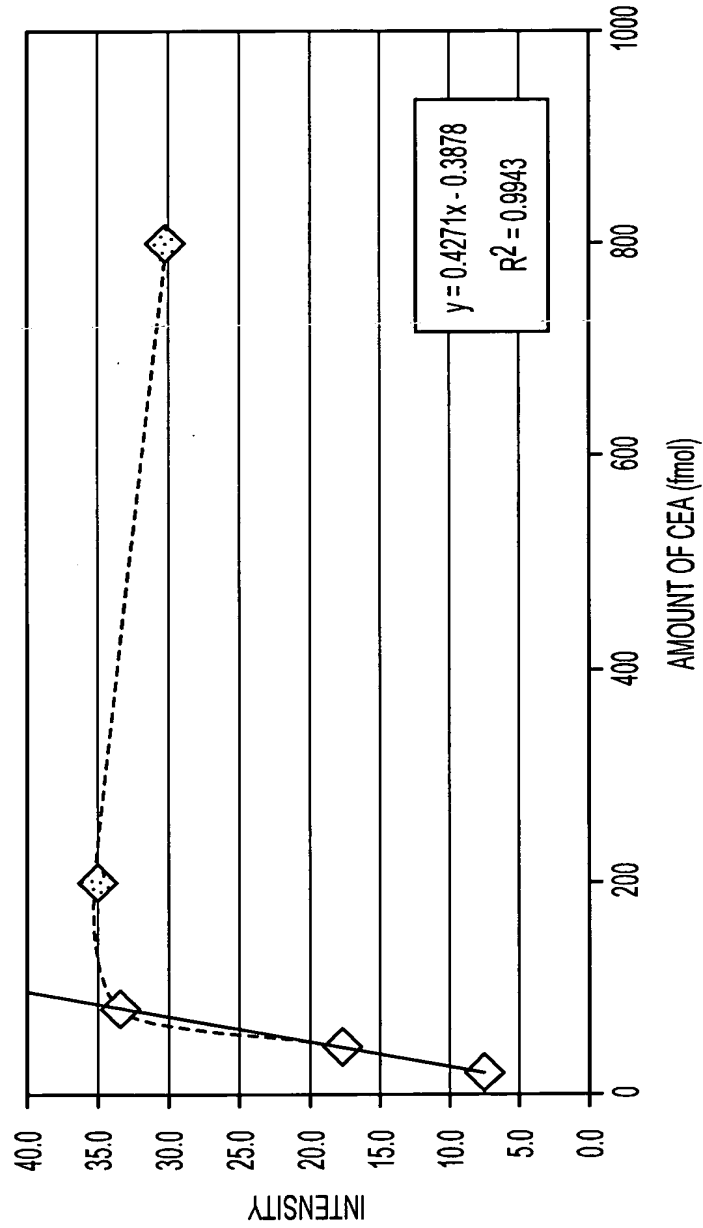
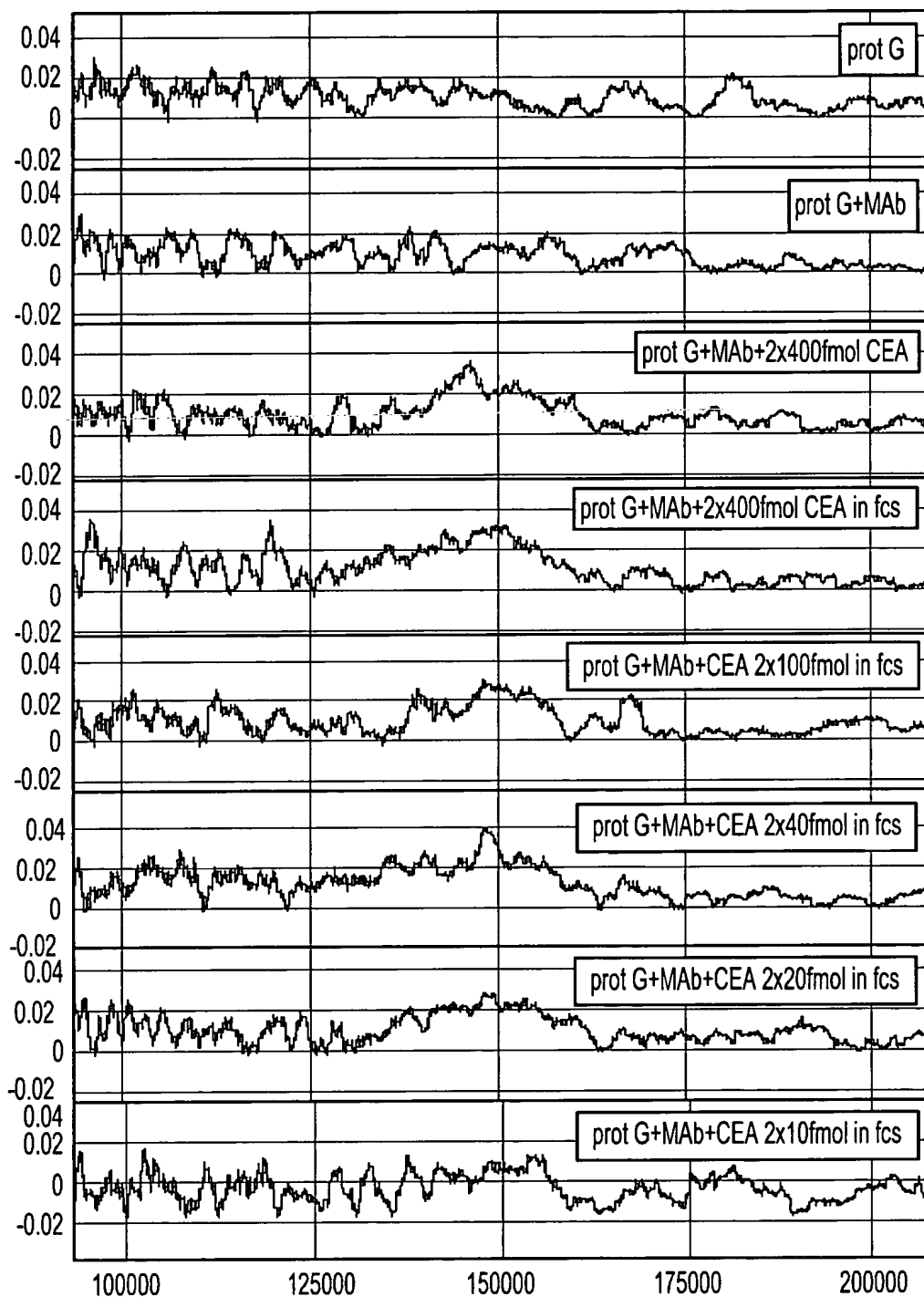
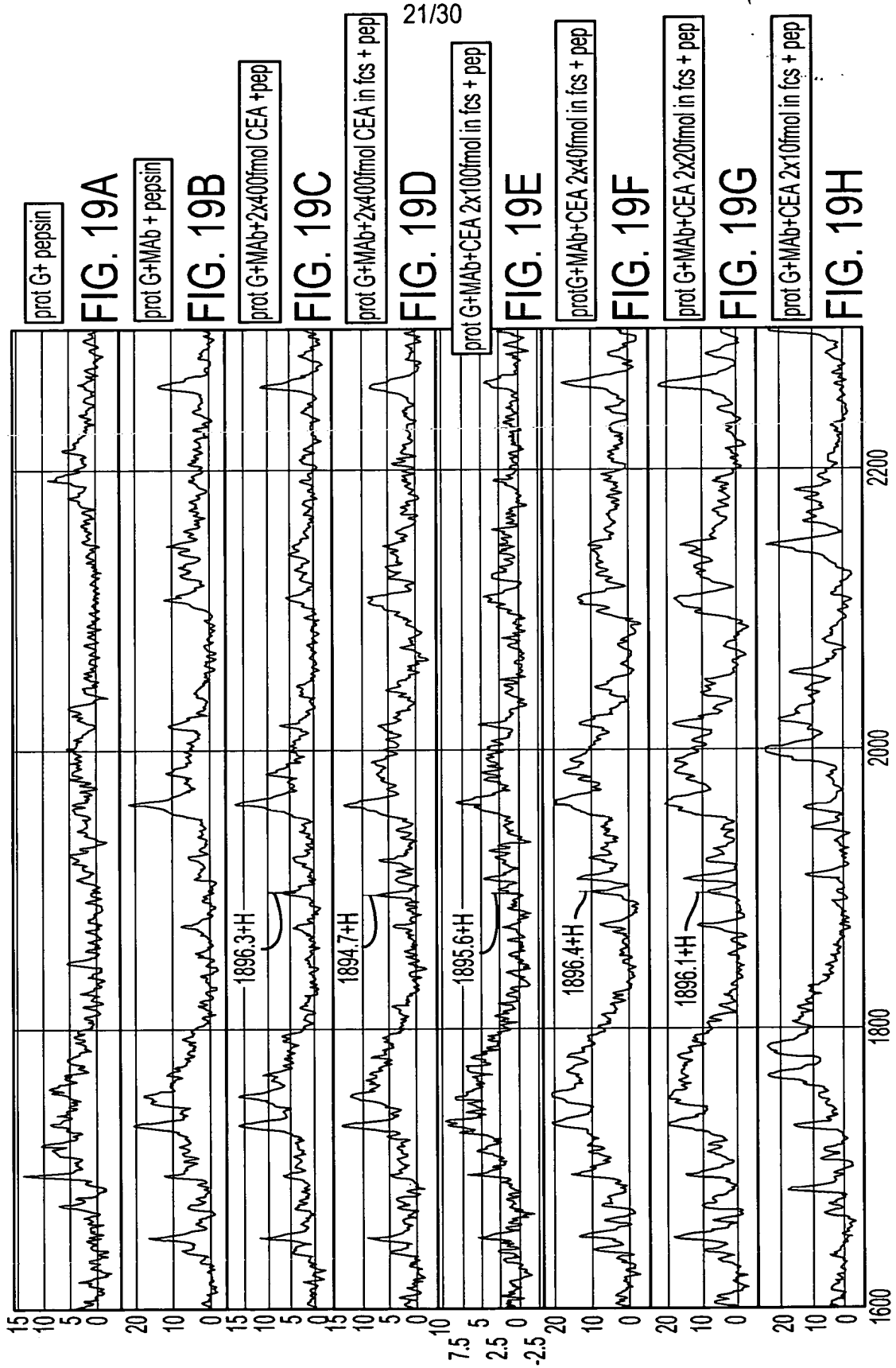


FIG. 17

20/30



21/30



22/30

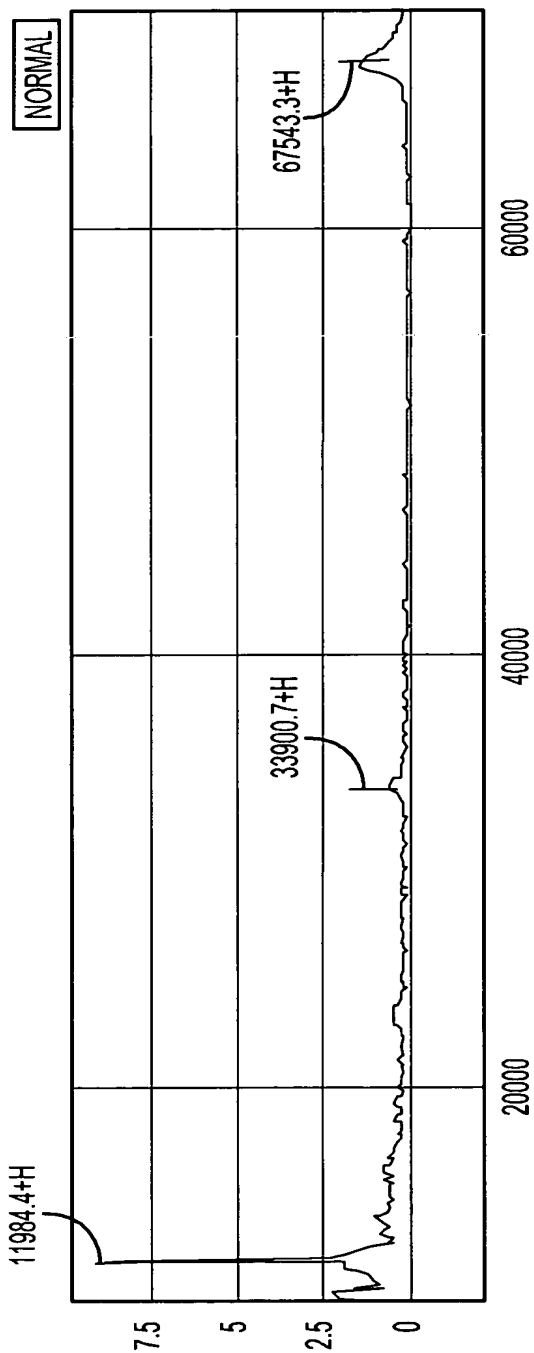


FIG. 20A

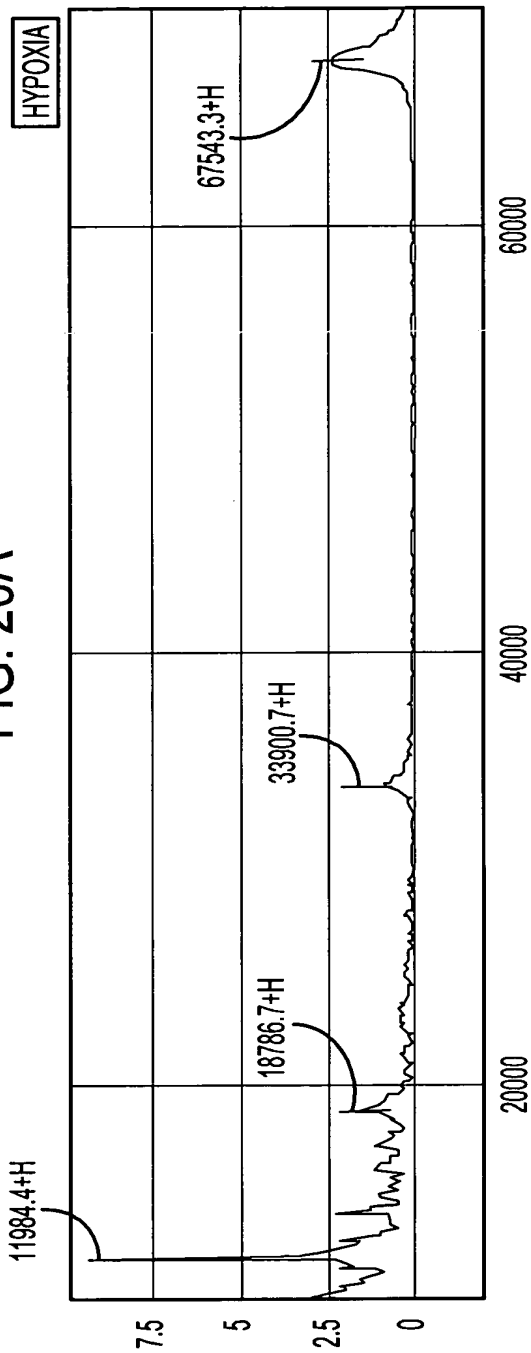


FIG. 20B

23/30

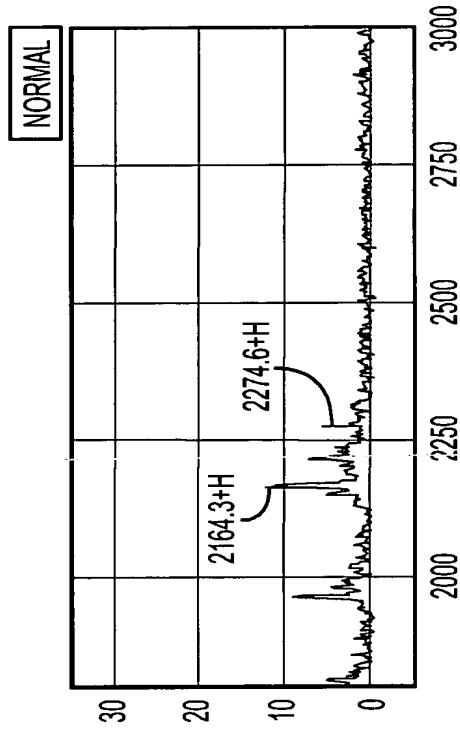


FIG. 21B

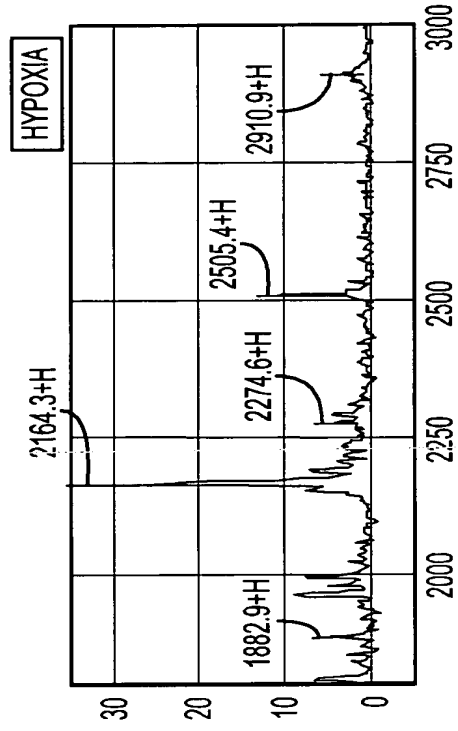


FIG. 21D

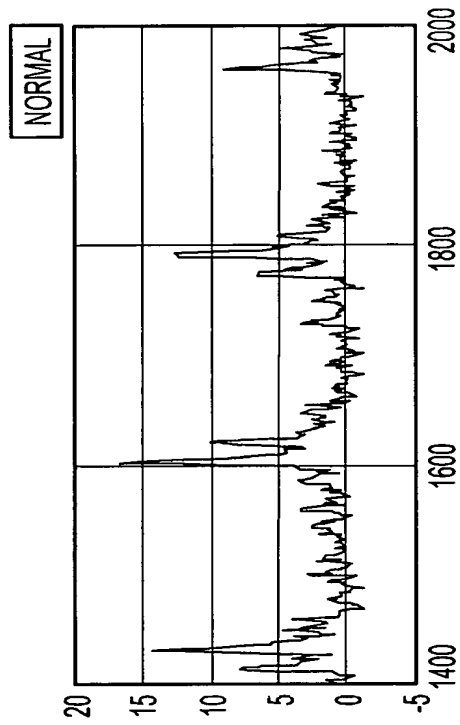


FIG. 21A

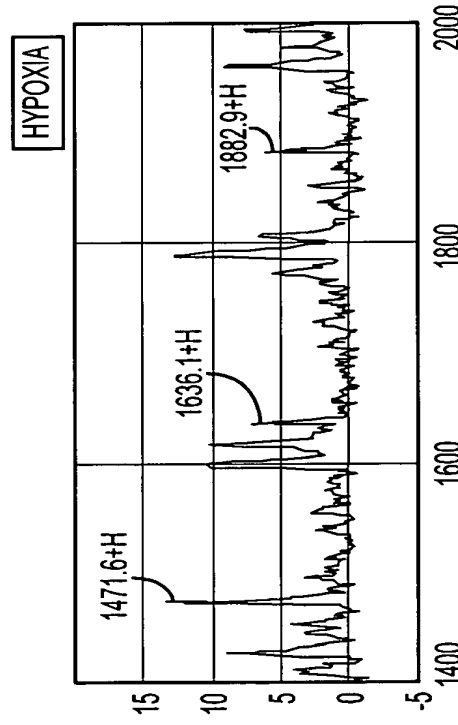


FIG. 21C

24/30

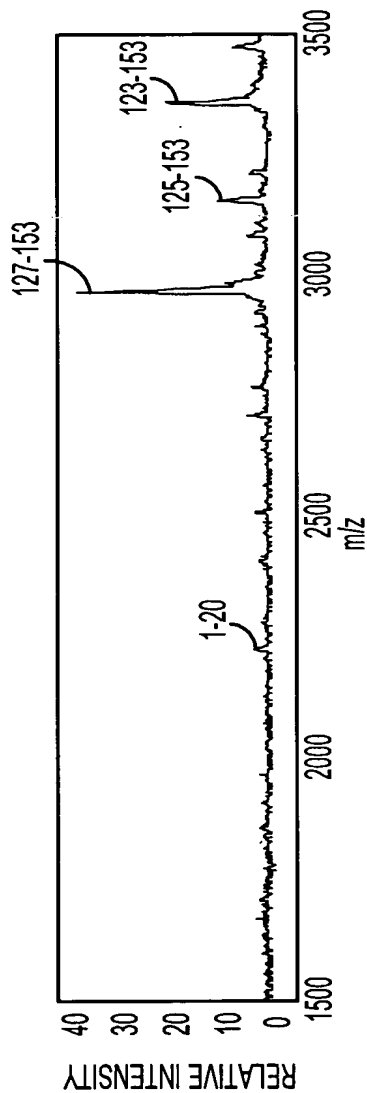


FIG. 22A

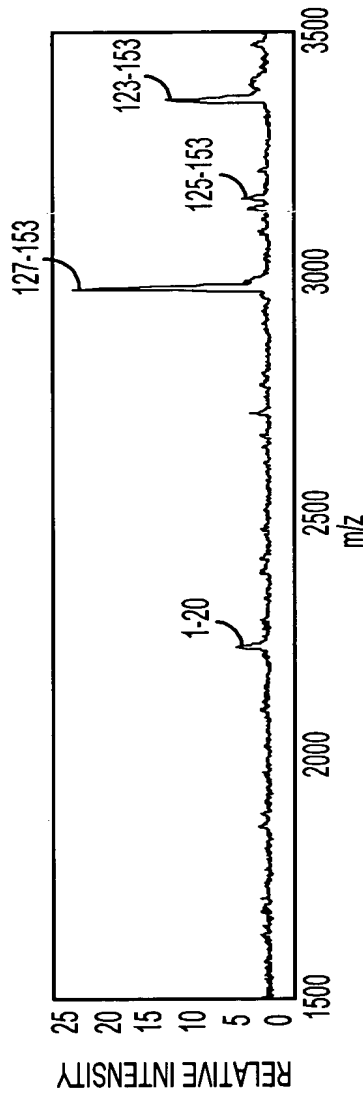


FIG. 22B

25/30

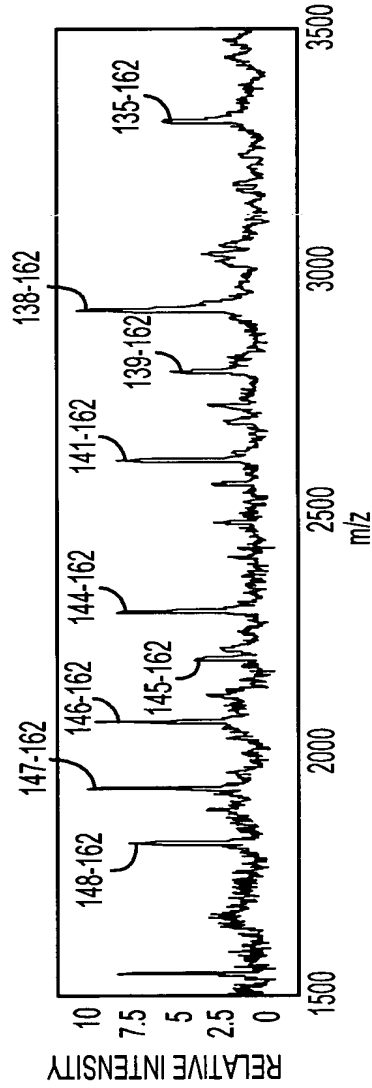


FIG. 22C

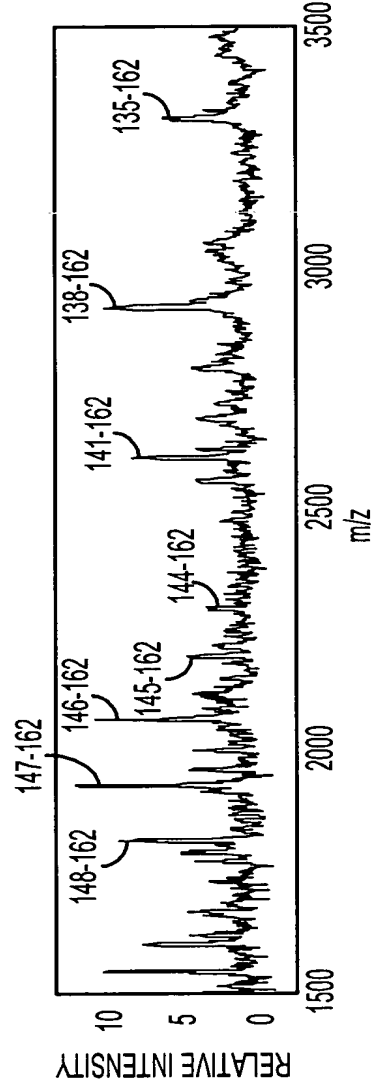


FIG. 22D

26/30

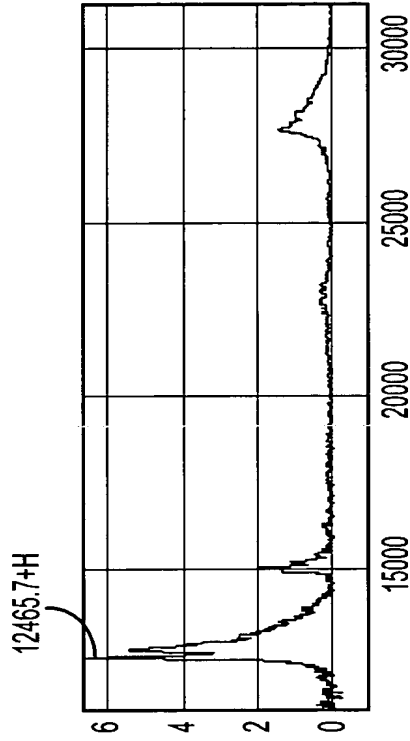


FIG. 23B

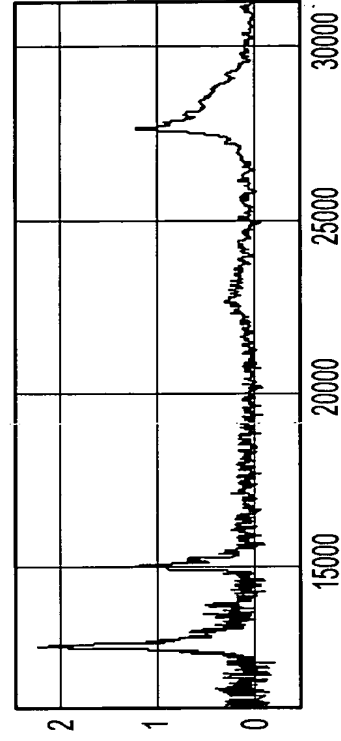


FIG. 23D

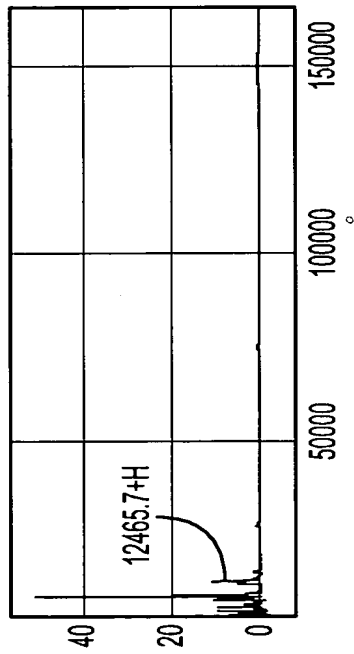


FIG. 23A

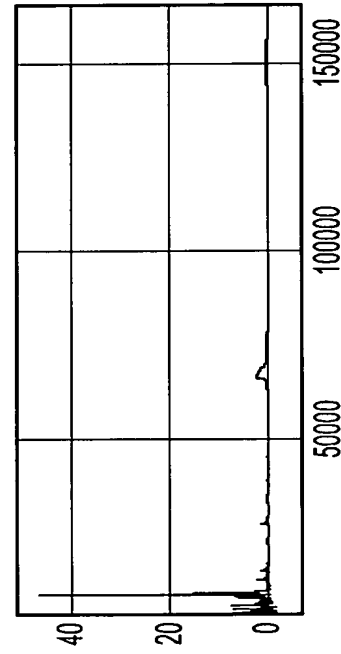


FIG. 23C

27/30

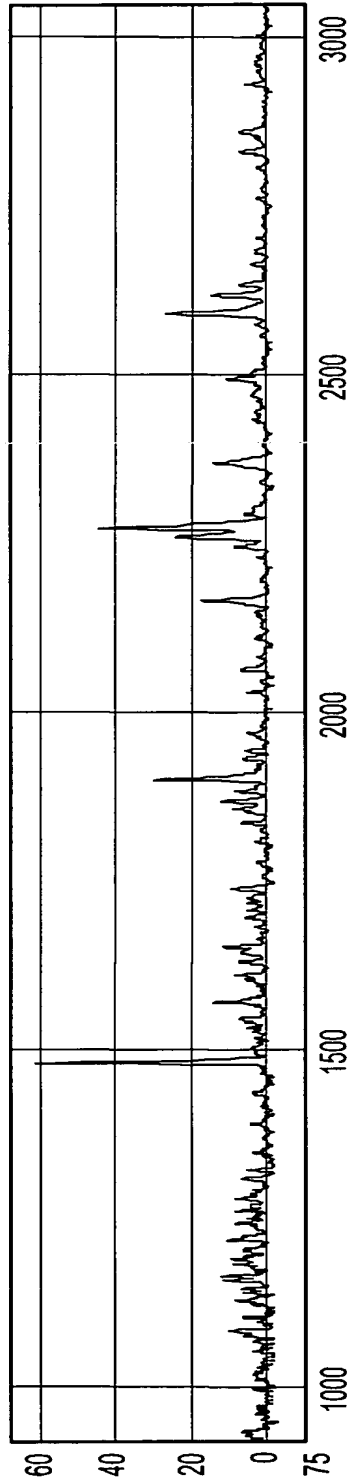


FIG. 24A

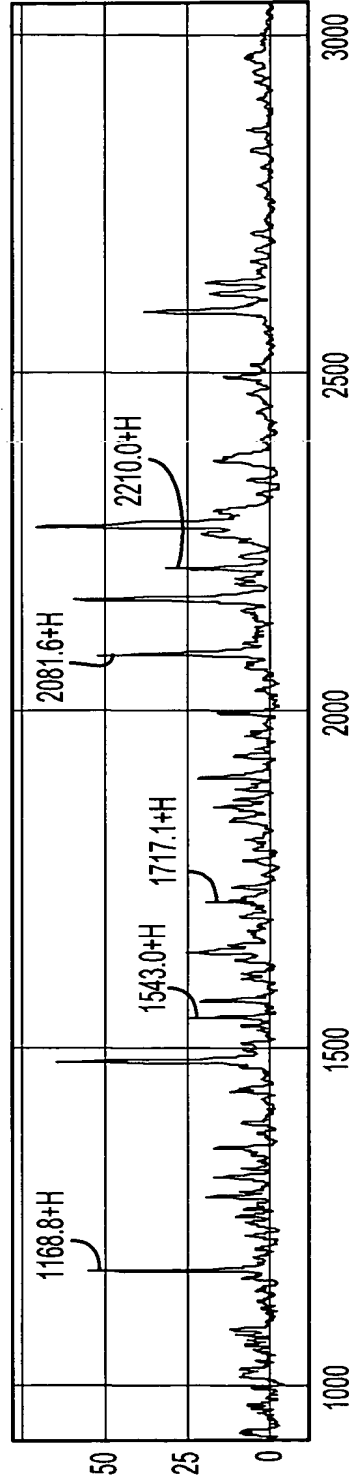
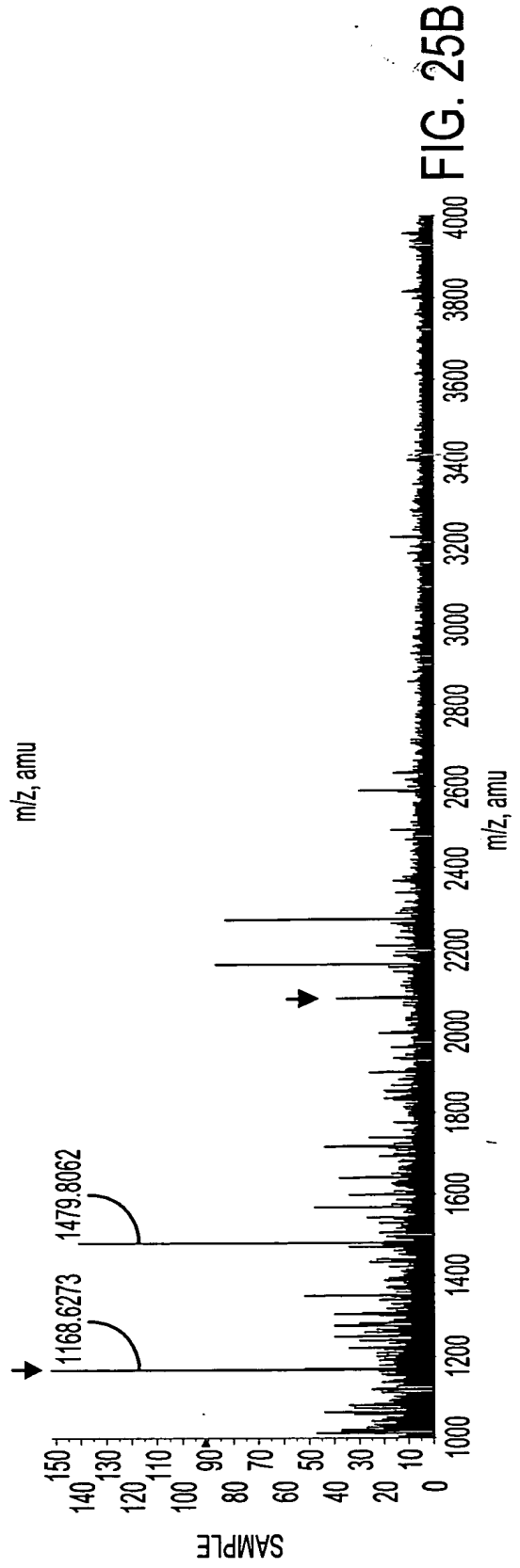
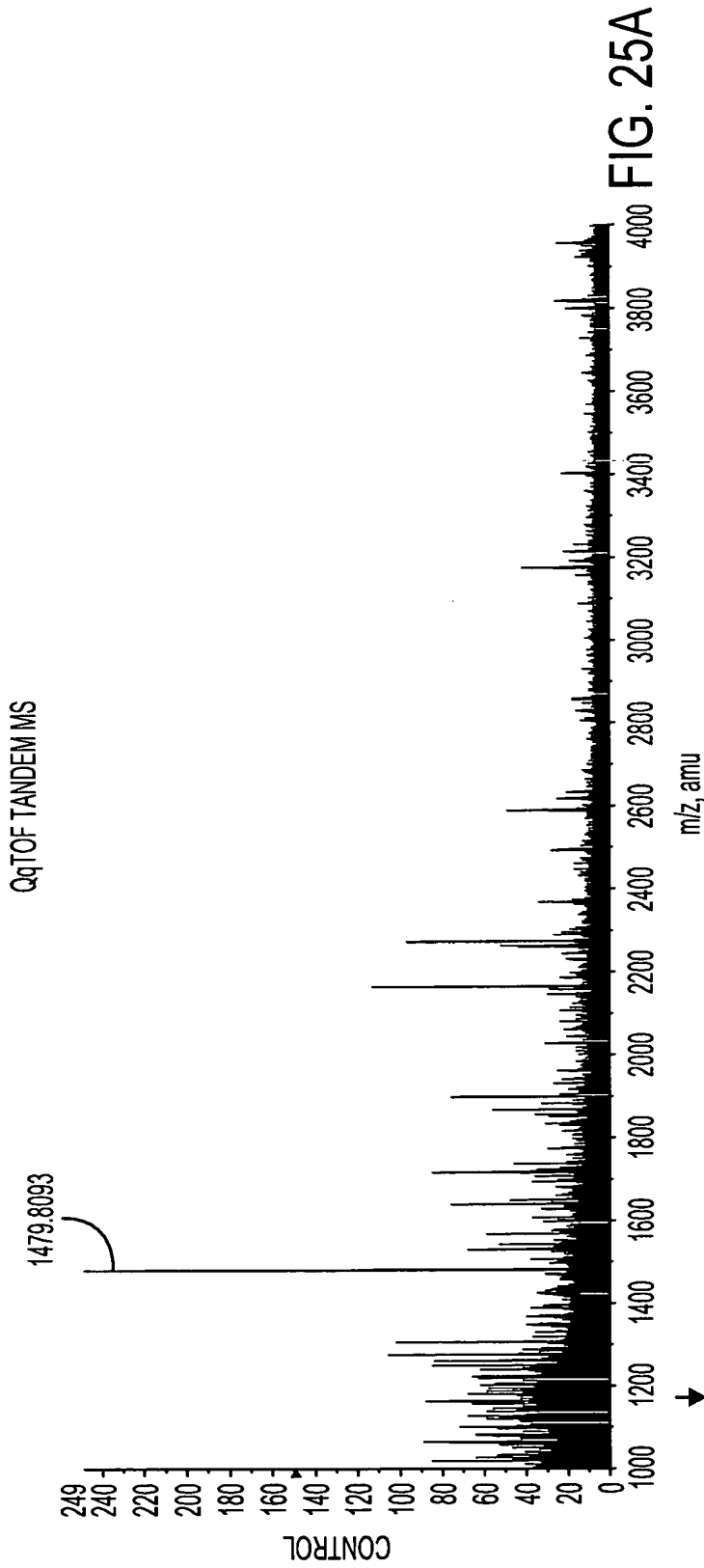


FIG. 24B

28/30



29/30

1168 MS/MS

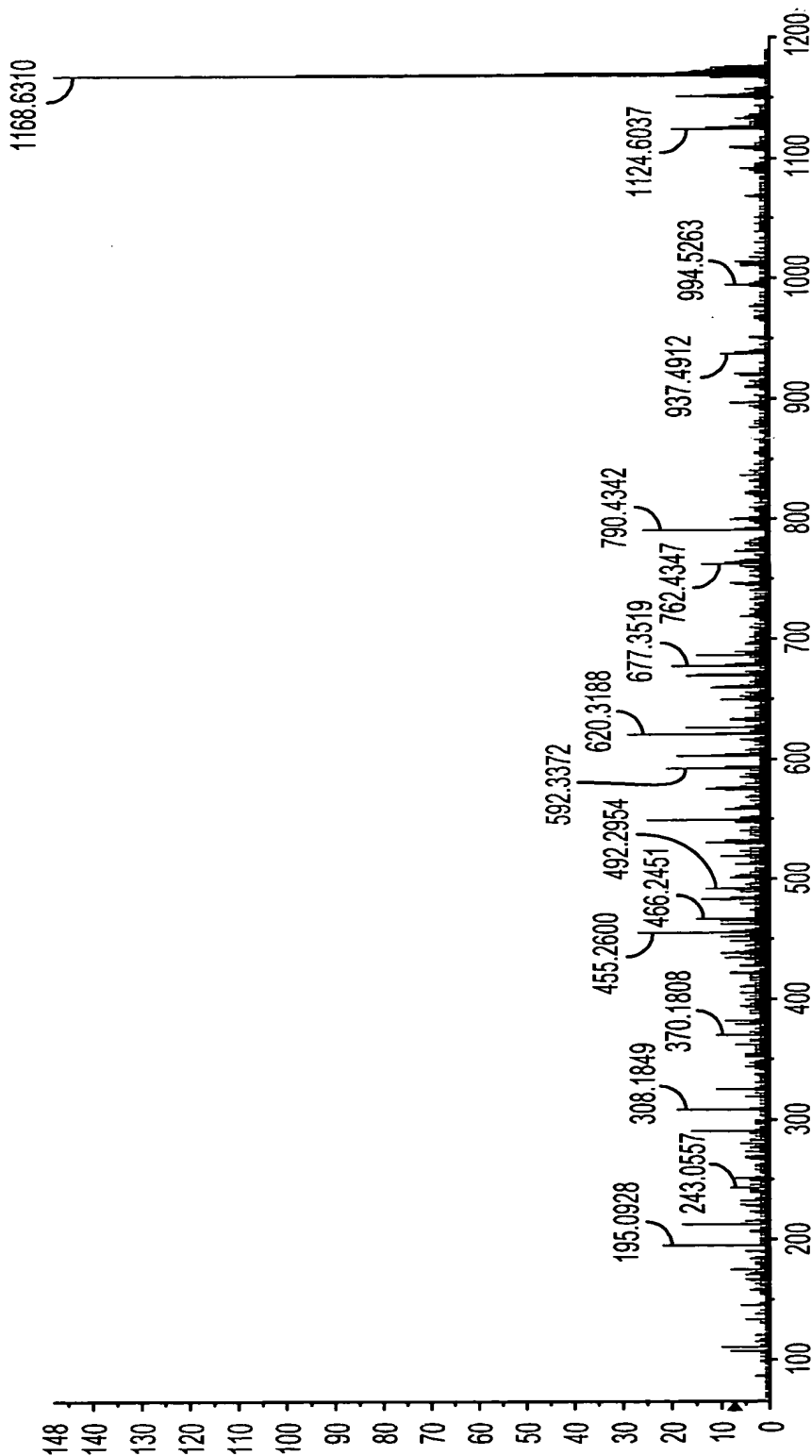


FIG. 26

30/30

MS-Tag Search Results

Press stop on your browser if you wish to abort this MS-Tag search prematurely.

Sample ID (comment): Apo A-1 1040 AKPVLEDLR

Database searched: NCBI nr.12.5.2001

Full Molecular Weight range: 810480 entries.

Full pI range: 810480 entries.

Pre searches select: 810480 entries.

Ion Types Considered: a-NH3 a b-NH3 b-H2O b-H2O y-y-NH3 y-H2O i m

Search Mode	Peptide Masses	Digest	Max. # Missed	Cysteines	Peptide
identity	are	Used	Cleavages	Modified by	N terminus
monoisotopic	Trypsin	3	unmodified	Hydrogen (H)	Free Acid (OH)

Number of sequences passing through parent mass filter: 18092

MS-Tag search selects 33 entries (results displayed for top 25 matches).

Parent mass: 1168.6310 (+/- 50.0000 ppm)

14 Fragment Ions used in search: 175.10, 195.09, 243.06, 308.18, 455.26, 549.31, 620.32, 669.35, 677.35, 762.43, 790.43, 937.49, 994.53, 1108.60 (+/- 50.00 ppm)

Max # Unmatched Ions = 7

Result Summary

Rank	Unmatched Ions	#	Sequence	MH ⁺ Calculated (Da)	MH ⁺ Error (ppm)	Protein MW (Da)/pI	Species	NCBI nr.12.5.2001 Accession #	Protein Name
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11808.9	9.63	HOMO SAPIENS	15920398	(BC015130) cytochrome c
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11888.0	9.52	UNREADABLE	14782885	>gi 14782885 ref XP_043240.1 (XM_043240) hypothetical protein XP_043240 [Homo sapiens]
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11757.8	9.59	UNREADABLE	4139715	>gi 4139715 pdb 1GIW Solution Structure Of Reduced Horse Heart Cytochrome C, Nmr, Minimized Average Structure
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11703.6	9.47	CHICKENS, HEART, PEPTIDE, 104 AA	914118	apocytochrome c
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11825.8	9.54	HORSES, HEART, PEPTIDE, 104 AA	914117	apocytochrome c
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11814.8	9.59	UNREADABLE	4139756	>gi 4139756 pdb 1WEJ Chain F, Iggl Fab Fragment (Of E8 Antibody) Complexed With Horse Cytochrome C At 1.8 A Resolution
1	3/14	(K)TGPNLHGLFGR(K)	1168.6227	7.1	11474.3	9.61	GUINEA PIG (TENTATIVE)	483111	cytochrome c

FIG. 27